

Abstract

The present invention concerns a rotor blade (10) of a wind power plant, comprising a rotor blade connection for connection to a hub (12) of the rotor of a wind power plant and a blade tip (13) disposed at the opposite end of the rotor blade (10). In order to provide a rotor blade (10) in which flexing can be detected with simple means, at least one electrical conductor (20, 21, 22, 23, 24, 26) is laid over the length of the rotor blade (10), wherein the electrical conductor (20, 21, 22, 23, 24, 26) begins at the rotor blade connection, extends in the longitudinal direction of the rotor blade and back to the rotor blade connection, and that there is provided a detector (16) which detects the electrical resistance of the conductor (20, 21, 22, 23, 24, 26) and is connected to an evaluation device which evaluates the electrical resistance.

In that respect the invention is based on the realisation that flexing of the rotor blade always leads to extension of the support structure and that such extension, when transferred to an electrical conductor, leads to a change in the electrical resistance of the conductor, from which it is possible to infer the flexing of the rotor blade as the change in resistance is proportional to the extension of the conductor and that is in turn proportional to the flexing of the rotor blade.

(Figure 2)